AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A follicle stimulating hormone peptide conjugate comprising a follicle stimulating hormone peptide and at least one moiety having the formula:

wherein

D is a member selected from -OH and R¹-L-HN-;

G is a member selected from R^1 -L- and -C(O)(C₁-C₆)alkyl;

R¹ is a moiety comprising a member selected a moiety comprising a straight-chain or branched poly(ethylene glycol) residue; and

L is a linker which is a member selected from a bond, substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl,

such that when D is OH, G is R^1 -L-, and when G is $-C(O)(C_1-C_6)$ alkyl, D is R^1 -L-NH-; and

wherein the moiety is covalently attached to the follicle stimulating hormone peptide via an intact glycosyl linking group.

2. (Previously Presented) The peptide conjugate according to claim 1, wherein R¹-L has the formula:

$$R^1$$
—HN a b

wherein

a is an integer from 0 to 20.

3. (Previously Presented) The peptide conjugate according to claim 1, wherein R^1 has a structure that is a member selected from:

wherein

e and f are integers independently selected from 1 to 2500; and q is an integer from 0 to 20.

4. (Previously Presented) The peptide conjugate according to claim 1, wherein R¹ has a structure that is a member selected from:

- e, f and f' are integers independently selected from 1 to 2500; and q and q' are integers independently selected from 1 to 20.
- 5. (Previously Presented) The peptide conjugate according to claim 1, wherein R¹ has a structure that is a member selected from:

$$\label{eq:ch2ch2ch2ch2ch2ch2} \begin{picture}(100) \put(0.5){\mathbb{Z}_2} \put(0.5){$\mathbb{Z}$$

e, f and f' are integers independently selected from 1 to 2500; and q, q' and q"are integers independently selected from 1 to 20.

6. (Withdrawn) The peptide conjugate according to claim 1, wherein R¹ has a structure that is a member selected from:

$$\label{eq:coh2} \Big\{ \hspace{-0.5cm} -\hspace{-0.5cm} \text{C(O)OCH$_2$CH$_2$(OCH$_2$CH$_2$)$_fOCH$_3}$$

wherein

e and f are integers independently selected from 1 to 2500.

7. (Previously Presented) The peptide conjugate according to claim 1, wherein said moiety has the formula:

- 8. (Previously Presented) The peptide conjugate according to claim 1, wherein said peptide has an amino acid sequence selected from SEQ ID NO:1 and SEQ ID NO:2.
- 9. (Currently Amended) The peptide conjugate according to claim 1, wherein said moiety has the formula:

$$\xi = AA - \left(\begin{array}{c} \left(\operatorname{Fuc} \right)_{i} \\ \left(\operatorname{Fuc} \right)_{i} \\ \left(\operatorname{GlcNAc-(Gal)}_{a} \right)_{e^{-}} \left(\operatorname{Sia} \right)_{j} - \left(\operatorname{R} \right)_{v} \right)_{r} \\ \left(\operatorname{GlcNAc-(Gal)}_{b} \right)_{f^{-}} \left(\operatorname{Sia} \right)_{k} - \left(\operatorname{R} \right)_{w} \right)_{s} \\ \left(\operatorname{GlcNAc-(Gal)}_{c} \right)_{g^{-}} \left(\operatorname{Sia} \right)_{l} - \left(\operatorname{R} \right)_{x} \right)_{t} \\ \left(\operatorname{GlcNAc-(Gal)}_{d} \right)_{h^{-}} \left(\operatorname{Sia} \right)_{m^{-}} \left(\operatorname{R} \right)_{y} \right)_{u} \right)_{q}$$

a, b, c, d, i, r, s, t, and u are integers independently selected from 0 and 1, and at least one of r, s, t, and u is 1;

q is 1;

e, f, g, and h are members independently selected from the integers from 0 to 6;

j, k, l, and m are members independently selected from the integers from 0 and 100;

v, w, x, and y are independently selected from 0 and 1, and least one of v, w, x and y is 1;

AA is an amino acid residue of said FSH peptide;

Sia-(R) has the formula:

10. (Previously Presented) The peptide conjugate according to claim 9, wherein said amino acid residue is an asparagine residue.

- 11. (Previously Presented) The peptide conjugate according to claim 10, wherein said amino acid residue is an asparagine residue selected from N7 of SEQ ID NO:2, N24 of SEQ ID NO:2, N52 of SEQ ID NO:1, and N78 of SEQ ID NO:1.
- 12. (Previously Presented) The peptide conjugate according to claim 1, wherein said peptide is a bioactive follicle stimulating hormone peptide.
- 13. (Withdrawn Currently Amended) A method of making a FSH peptide conjugate comprising a follicle stimulating hormone peptide and the moiety:

D is a member selected from -OH and R¹-L-HN-;

G is a member selected from R^1 -L- and -C(O)(C₁-C₆)alkyl;

R¹ is a moiety comprising a member selected a straight-chain or branched poly(ethylene glycol) residue; and

L is a linker which is a member selected from a bond, substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl,

such that when D is OH, G is R^1 -L-, and when G is $-C(O)(C_1-C_6)$ alkyl, D is R^1 -L-NH-,

wherein the moiety is covalently attached to the follicle stimulating hormone peptide via an intact glycosyl linking group

said method comprising:

(a) contacting a substrate FSH peptide with a PEG-sialic acid donor moiety having the formula:

and an enzyme that transfers said PEG-sialic acid onto an amino acid or glycosyl residue of said FSH peptide, under conditions appropriate for the transfer.

14. (Withdrawn) The method according to claim 13, wherein $\underline{R^1-L}$ $\underline{L-R^1}$ has the formula:

wherein

a is an integer from 0 to 20.

15. (Withdrawn) The method according to claim 13, wherein R¹ has a structure that is a member selected from:

$$\label{eq:ch2O} \begin{cases} \begin{tabular}{lll} \begin{tab$$

wherein

e and f are integers independently selected from 1 to 2500; and q is an integer from 0 to 20.

16. (Withdrawn) The method according to claim 13, wherein R¹ has a structure that is a member selected from:

wherein

e, f and f' are integers independently selected from 1 to 2500; and q and q' are integers independently selected from 1 to 20.

17. (Withdrawn) The method according to claim 13, wherein R¹ has a structure that is a member selected from:

$$\label{eq:substitute} \begin{cases} \begin{tabular}{lll} \beg$$

wherein

e, f and f' are integers independently selected from 1 to 2500; and q, q' and q"are integers independently selected from 1 to 20.

18. (Withdrawn) The method according to claim 13, wherein R¹ has a structure that is a member selected from:

$$\label{eq:coh2} \begin{array}{l} \displaystyle \xi\text{---}\text{C(O)OCH}_2\text{CH}_2\text{(OCH}_2\text{CH}_2\text{)}_f\text{OCH}_3 \end{array}$$

wherein

e and f are integers independently selected from 1 to 2500.

- 19. (Withdrawn) The method of claim 13, further comprising, prior to step (a): (b) expressing said substrate follicle stimulating hormone peptide in a suitable host.
- 20. (Withdrawn) The method of claim 13, wherein said host is selected from an insect cell and a mammalian cell.

- 21. (Withdrawn) A method of stimulating ovarian follicles in a mammal, said method comprising administering to said mammal the peptide conjugate according to claim 1.
- 22. (Withdrawn) A method of treating a condition in a subject in need thereof, said condition characterized by reproductive infertility said method comprising the step of administering to the subject an amount of the peptide conjugate according to claim 1, effective to ameliorate said condition in said subject.
- 23. (Previously Presented) A pharmaceutical formulation comprising the peptide conjugate according to claim 1, and a pharmaceutically acceptable carrier